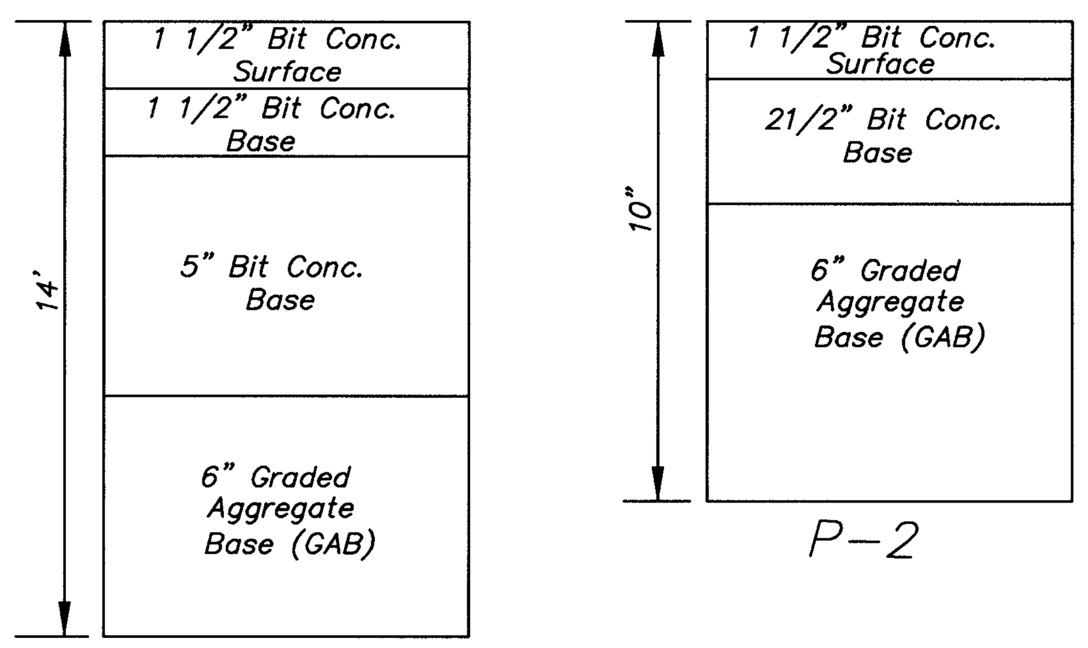
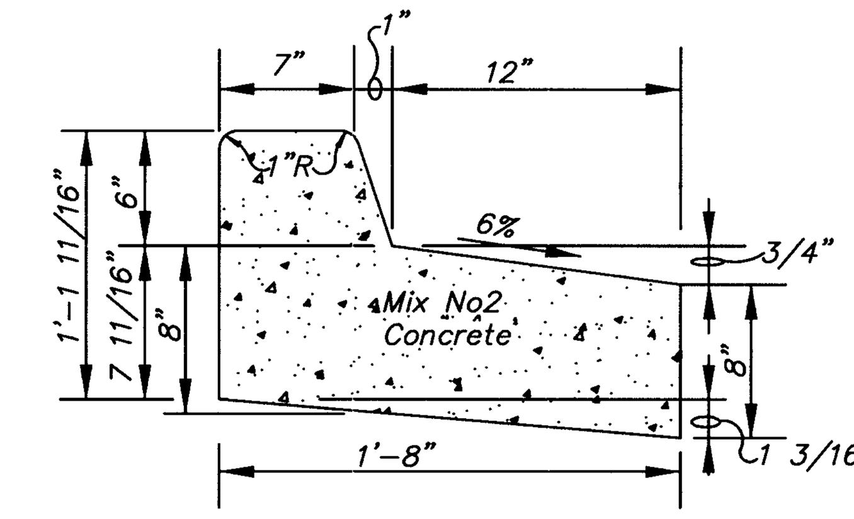
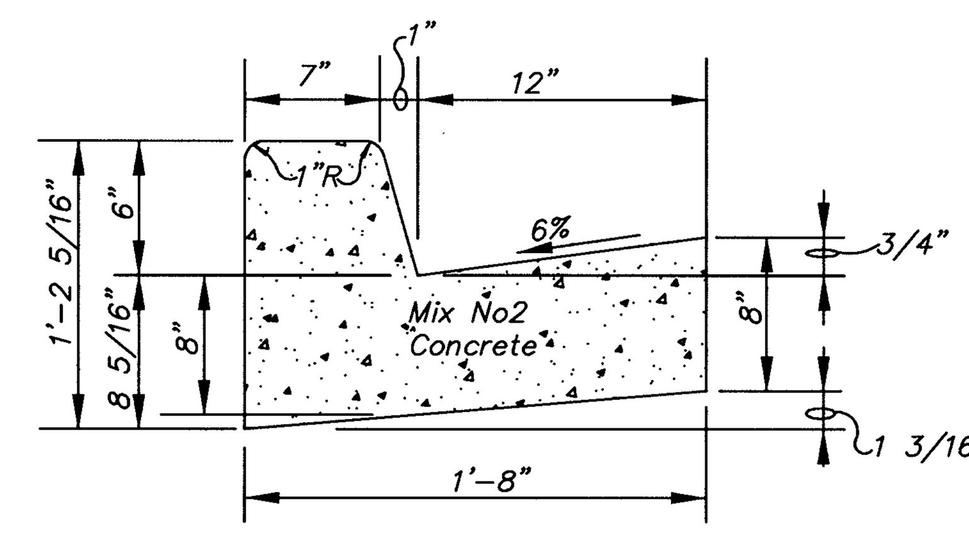
Granular Base Sections



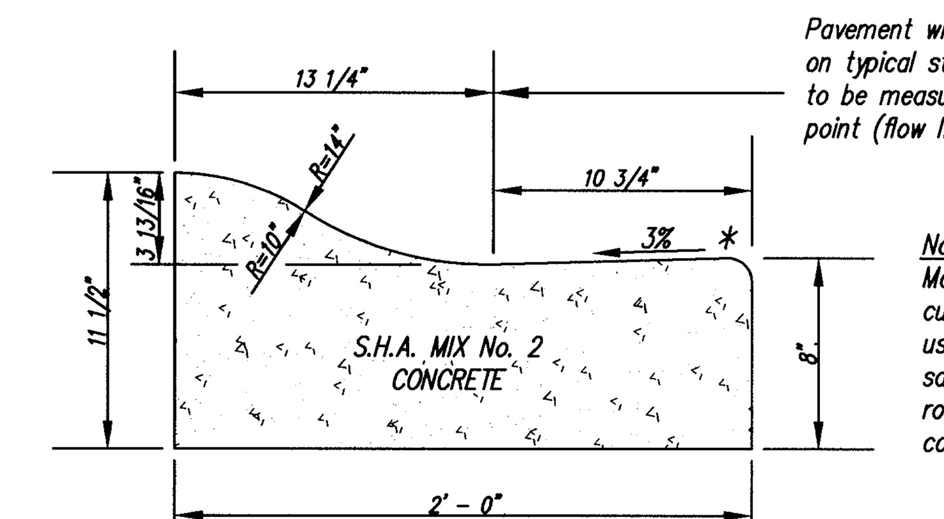
Paving Sections
N.T.S.



Reverse 6" Combination Curb & Gutter
N.T.S.



Standard 6" Combination Curb & Gutter
N.T.S.

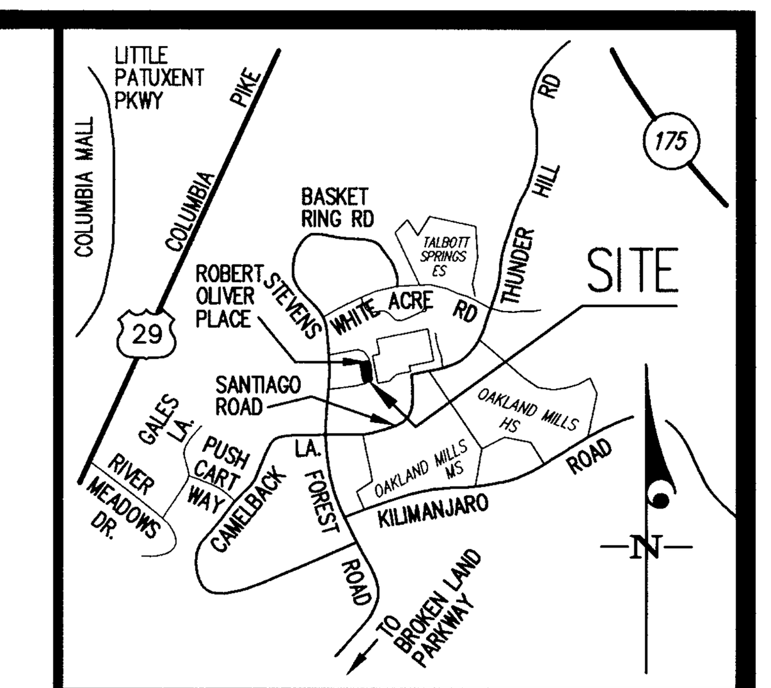


Pavement width indicated on typical street sections to be measured to this point (flow line)

Note: Modified comb. curb & gutter to be used only on cul-de-sac streets, local roads or minor collector roads.

Modified Combination Curb and Gutter

Gutter pan at the median edge of intermediate arterials or the high side of superelevated sections shall be sloped at the same rate and in the same direction as the pavement. Match pavement cross slope when curb is located on the low side of superelevated section and the rate of superelevation is greater than 3% for modified curb & gutter.



VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES

1. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standard and specifications if applicable.
2. The contractor shall notify the Department of Public Works, Bureau of Engineering, Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
3. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
4. The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five working days prior to starting any excavation work.
5. Site area: 0.291 acres.
6. All plan dimensions are to face of curb unless otherwise noted.
7. Existing topography is shown per field run survey information by Gutschick, Little & Weber, P.A.
8. Coordinates and bearings are based upon the MD State plan system (NAD '27).
9. Water and sewer shown is public.
10. Stormwater management for this site is exempt.
11. All existing water and sewer is per Contracts C-268-W&S and C-305-W&S.
12. All existing public storm drain is per F-68-30.
13. All curb radii is 5' unless noted otherwise.
14. Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise.
15. Trash collection for this site will be internal to the building.
16. Paved areas indicated are private except as noted.
17. Project background: See Dept. of Planning & Zoning File Numbers: FDP-40, F-68-30, WP-98-49.
18. Recording reference: Plat Book 15 Plat No. 60.
19. All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
20. All proposed water meters shall be located inside buildings.
21. All proposed site utilities are to terminate 5' from the building. The building plumber shall connect to and extend these utilities to the inside of the building.
22. Existing utilities are based on approved design plans for construction and field location by Gutschick, Little & Weber, P.A.
23. There is no floodplain on this site.
24. There are no wetlands on this site.
25. No traffic study is required for this site.
26. All bulk requirements and setbacks are ~~per~~ FDP Phase 40-A-III, recorded in Plat 3045A 1679 to 1682
27. The bearing, distances and grid tic coordinates shown on this plan were taken directly from the original subdivision plat (P.B. 15, P. No. 61) (NAD 27) and the relative positions of exist. features were established by recovering existing boundary monumentation and relating those to the exist. features. Boundary and physical features were field verified by Gutschick, Little & Weber, P.A. in October 1997.

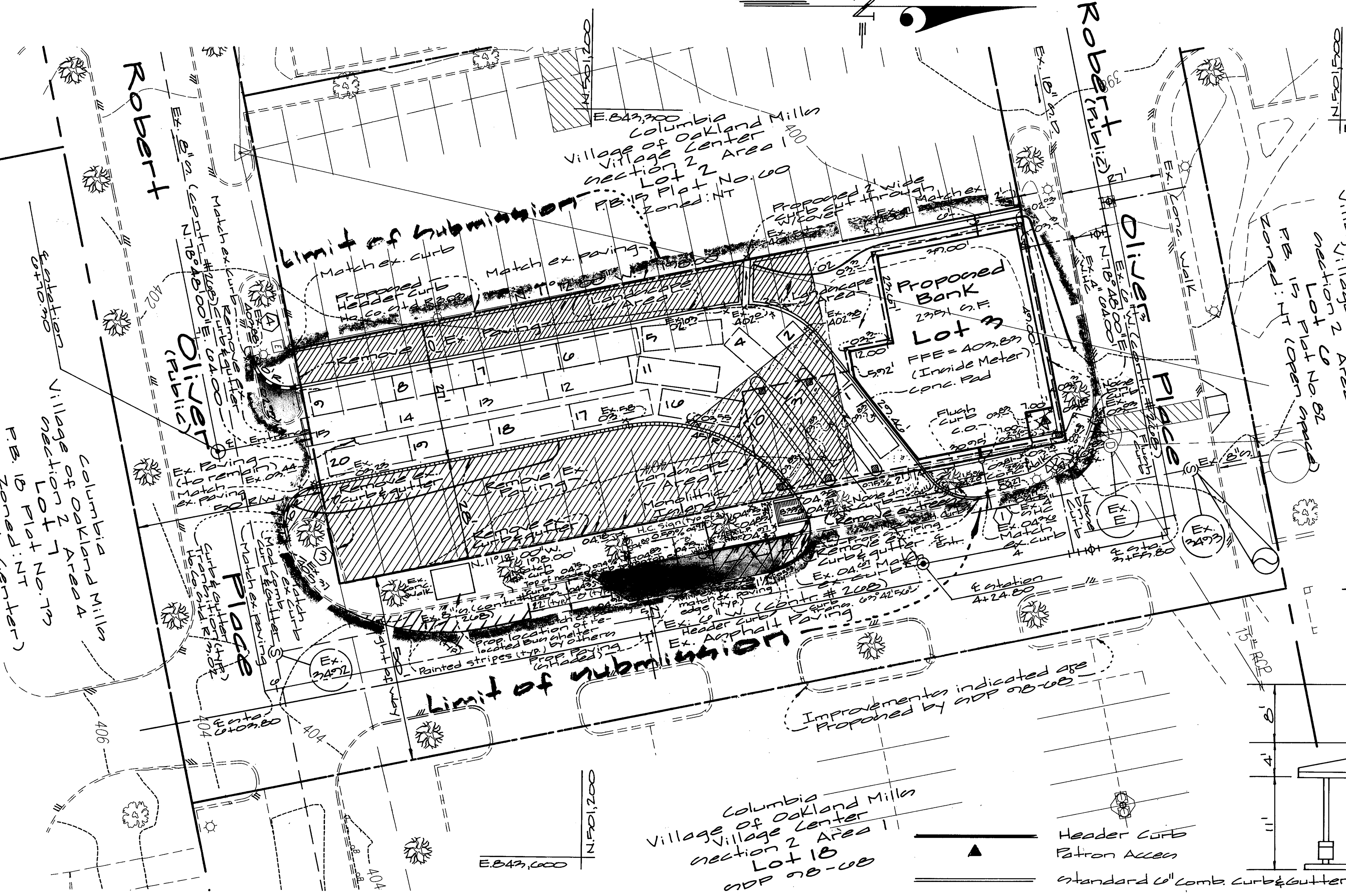
Storm Drain Computation
For Cut-Through

C = 0.69
I_{10} = 8.55
A = 0.22 Ac.
Q = C I_{10} A
Q = 0.69(8.55)(0.22)
= 1.3 cfs

Depth of Flow:
Q = CLH 3/2
C = 3.1
L = 2
∴ H = 0.35' < 0.5'

Entrance Fillet Centerline Info.

Point	Station	Offset
1	4+05 ±	13.5' ±
2	4+58.5 ±	13.5' ±
3	6+46.80	13.5' ±
4	6+93.80	13.5' ±



Site Analysis (Lot 3)

1. Area of Parcel 12,672 S.F./0.291 Ac.
2. Zoning: New Town
3. Proposed Use: Bank w/Drive Thru
4. Gross Building Area: 2,351 S.F.
5. Total Parking Spaces Required: (Shared Parking w/Lots 17 & 18)

Lot 17 Uses:	GFA	Leasable Net Floor Area (80% GFA)
Restaurant	5,112 s.f.	N/A
Retail:	8,864 s.f.	6962 s.f.
Total:	13,976 s.f.	N/A

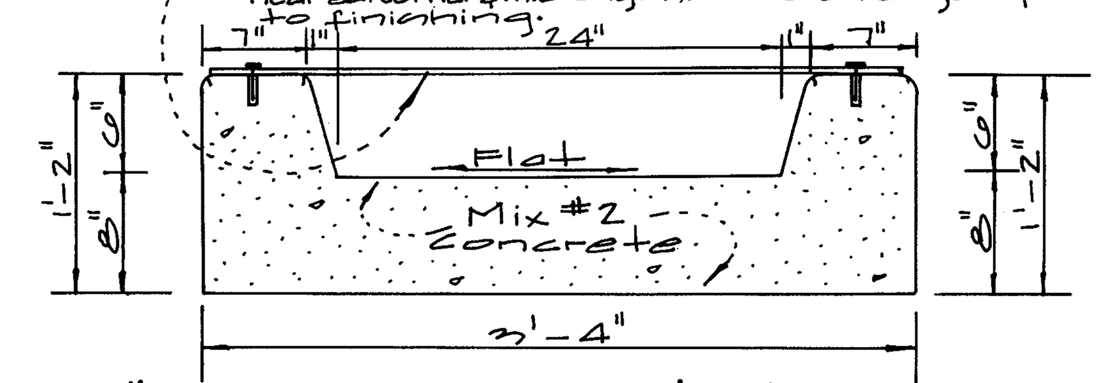
Lot 18 Uses:	GFA	Leasable Net Floor Area (80% GFA)
Retail:	46,772 s.f.	37,378 s.f.

Lot 3 Uses:	GFA	Leasable Net Floor Area (80% GFA)
Bank	2,351 s.f.	1,881 s.f.

Parking Generation:
Retail & Bank 46,221 s.f. x 5 sp./1000 s.f. = 231 spaces
Restaurant 5,112 x 5 sp/1000 s.f. = 26 spaces
256 spaces

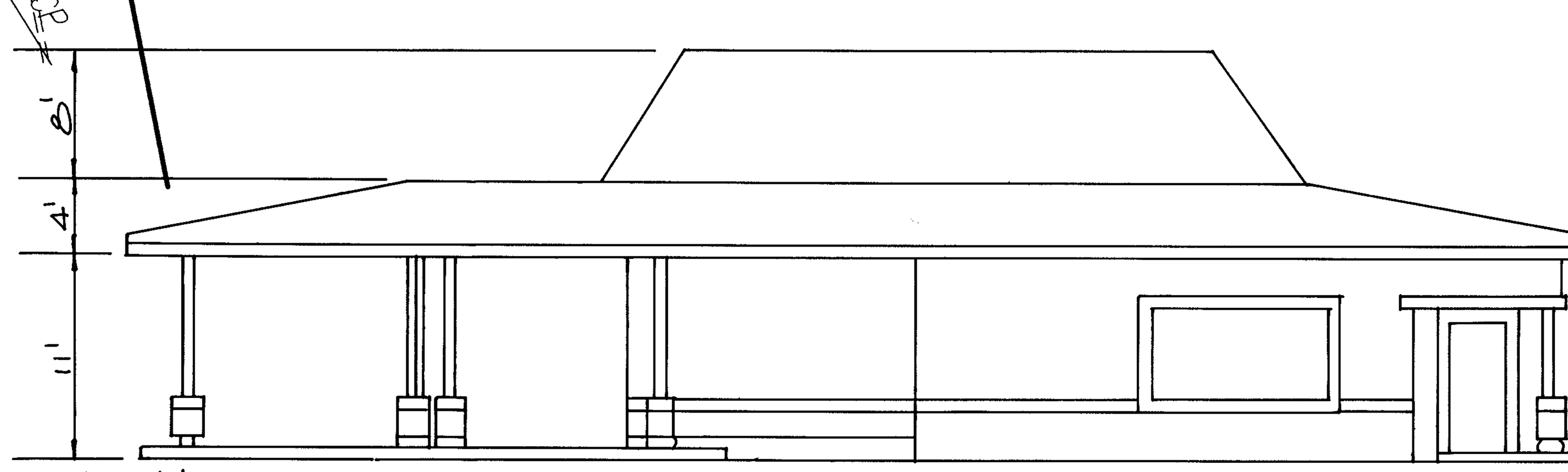
6. Total Parking Provided = 313 spaces
7. Total Number of Handicap Spaces Required = 8 spaces
8. Total Number of Handicap Van Spaces Required = 1 space
9. Total Number of Handicap Spaces Provided: 9 spaces
10. Total Number of Handicap Van Spaces Provided: 4 spaces
11. Building Coverage Lot 3: 19%

3/8"x3'-4" wide steel cover plate (Diamond Plate). Plate to be primed & painted powder coat black. Attach plate to conc. cut-through w/6-3/8"φx2" stainless steel Lag Bolts w/lead shields (one near ea. corner & mid-Length). Round all edges prior to finishing.



6" Combination Curb & Cut Through
N.T.S.

Bench Mark
Rim of MH 3493
Elev. = 405.76



Schematic Building Elev.

Legend

- Header Curb
- Patron Access
- Standard 6" Comb. Curb & Gutter
- Reverse 6" Comb. Curb & Gutter
- Transition Curb & Gutter
- Existing Contour
- Proposed Grade
- Exist. Paving (to be removed)
- P-5 Paving
- Conc Walk / Pad / Island
- Existing Spot Elevation
- Proposed Spot Elevation

Sheet Index
1. Site Plan & Site Details
2. Landscape Plan, Notes & Details
3. Sediment Control Plan, Notes & Details

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE May 7, 1998

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Signature	Date
Director	6/1/98
Chief, Division of Land Development	5/28/98
Chief, Development Engineering Division	5/19/98

ADDRESS CHART

WATER CODE:	SEWER CODE:	LOT NUMBER	STREET ADDRESS
		3	5880 ROBERT OLIVER PLACE

SUBDIVISION NAME:	SECTION/AREA	LOT
VILLAGE OF OAKLAND MILLS	2/1	3

PLAT	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
15/60	NEW TOWN	36	3	6	6066.03

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	DRN.	CHK. MJT	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD. 21044
(410) 992-6370

Site Development Plan
COLUMBIA
VILLAGE OF OAKLAND MILLS
SECTION 2 AREA 1
LOT 3

GUILFORD ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 20'	NEW TOWN	97071
DATE	TAX MAP No.	SHEET
May 11, 1998	36	1 OF 3

SDP-98-109

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees shall be 3-3½" caliper, 14'-16' in height.

d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3"-3½" caliper, 10'-12' in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3½"	14'-16'	6'-8'	32" diameter
3½"- 4"	14'-16'	8'-10'	36" diameter
4" - 4½"	16' 18'	8'-10'	40" diameter
4½"- 5"	16'-17'	10'-12'	44" diameter
5" - 5½"	16'-20'	10'-12'	48" diameter
5½"- 6"	18'-20'	12'-14'	52" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B+B) in accordance with the "AAN Standards".

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

PLANT SIZE	ROOT BALL	PIT DIAMETER	PIT DEPTH
3" - 3½" cal.	32"	64"	28"
3½"- 4" cal.	36"	72"	32"
4" - 4½" cal.	40"	80"	36"
4½"- 5" cal.	44"	88"	40"
5" - 5½" cal.	48"	96"	44"
5½"- 6" cal.	52"	104"	48"

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 ga. galvanized or bethanized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16", 7 strand cable cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss, or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

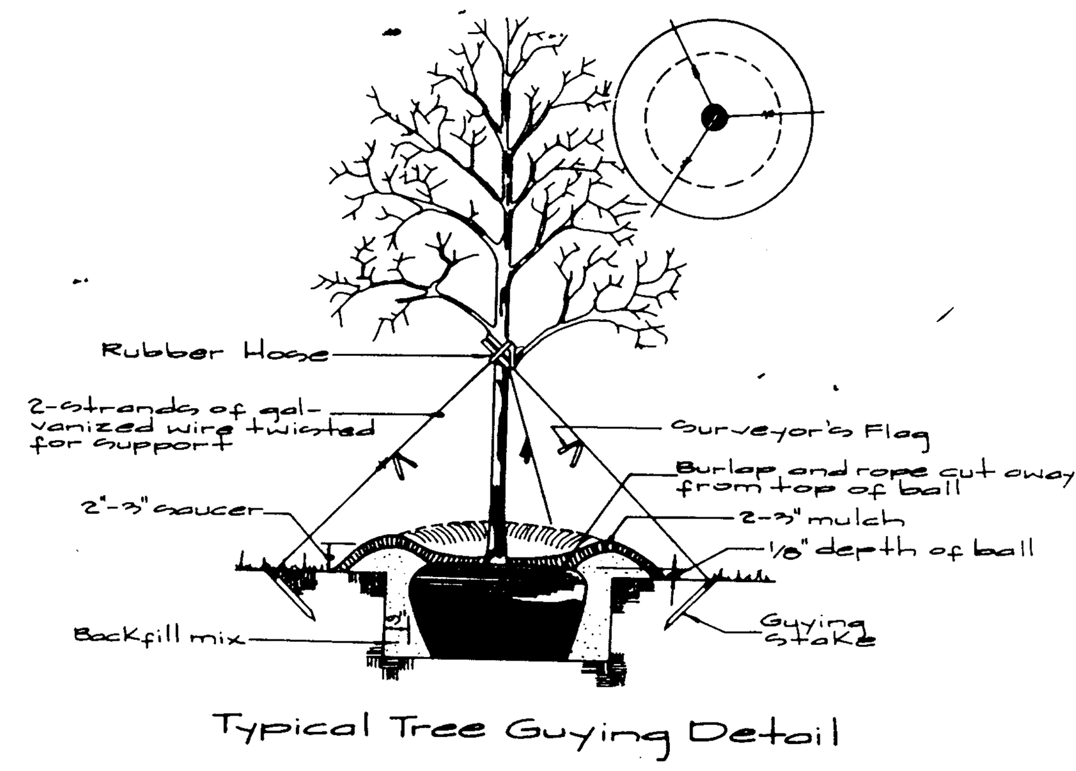
a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

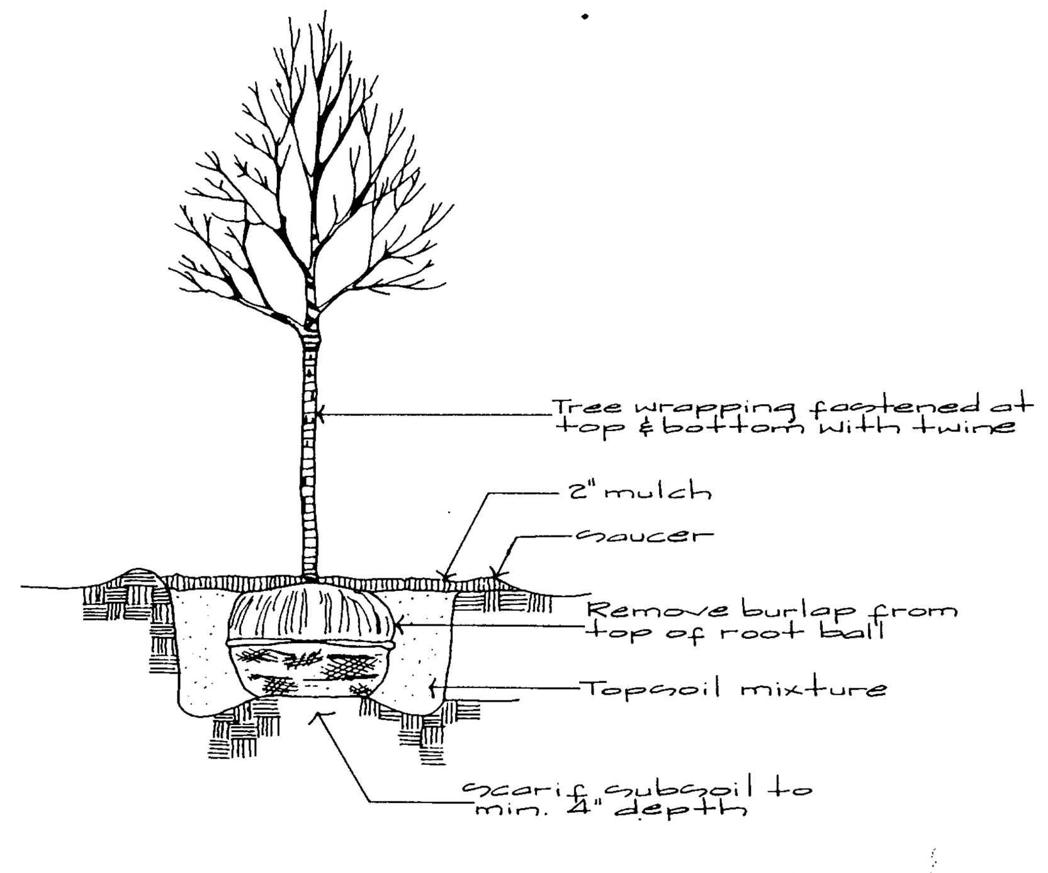
Sodding

All sodding shall be in accordance to the "Landscape Specification Guidelines for Baltimore-Washington metropolitan Areas" latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

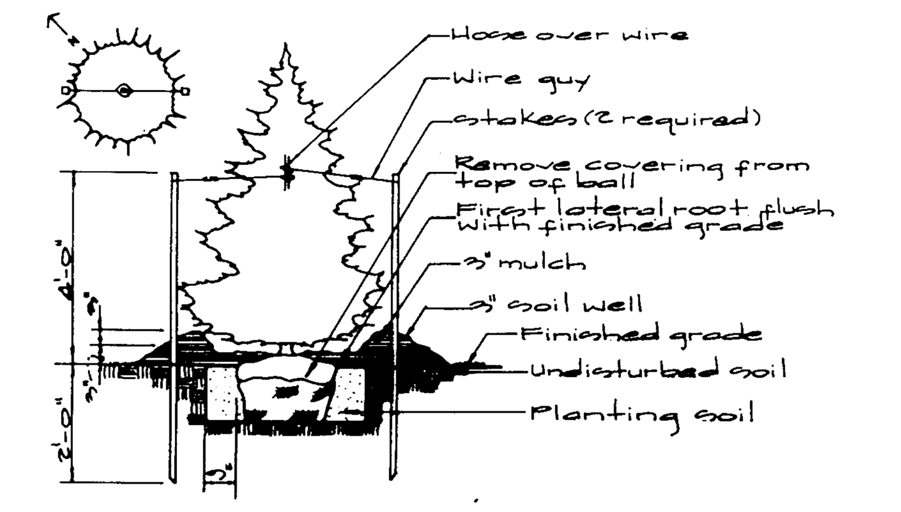
All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Victa, or Escort.

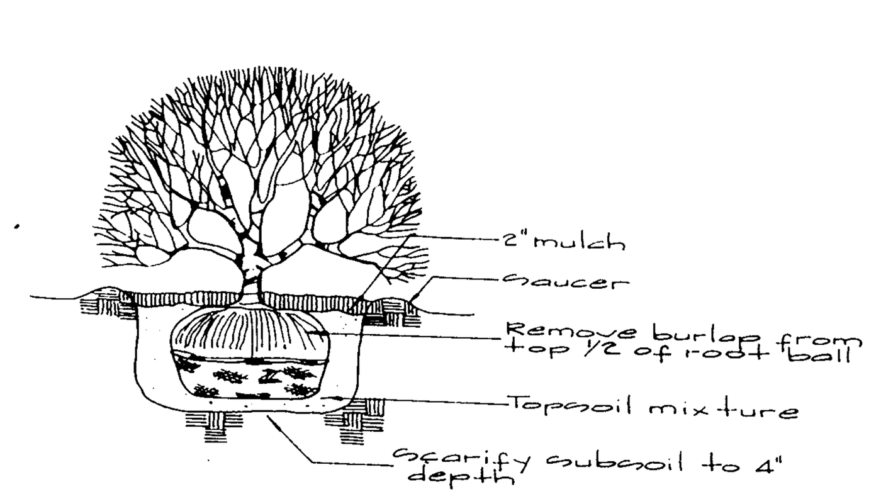


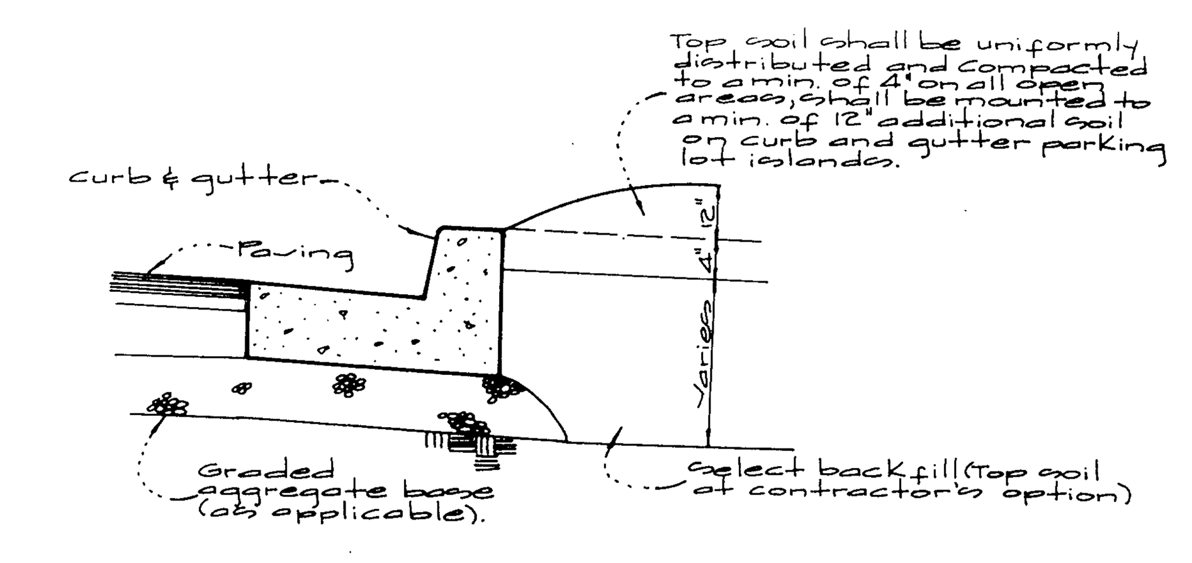
Typical Tree Guying Detail



Typical Deciduous Tree Planting



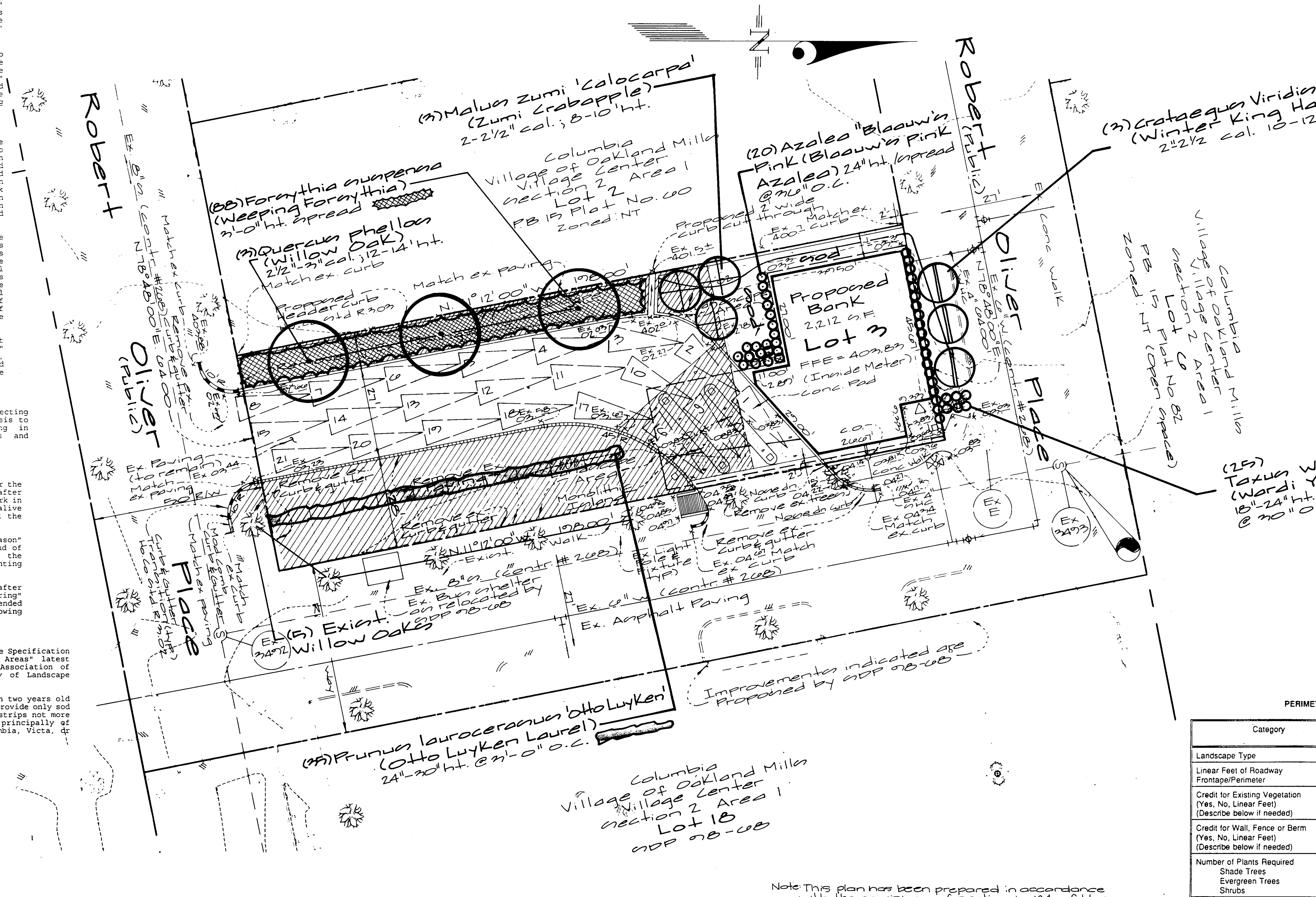


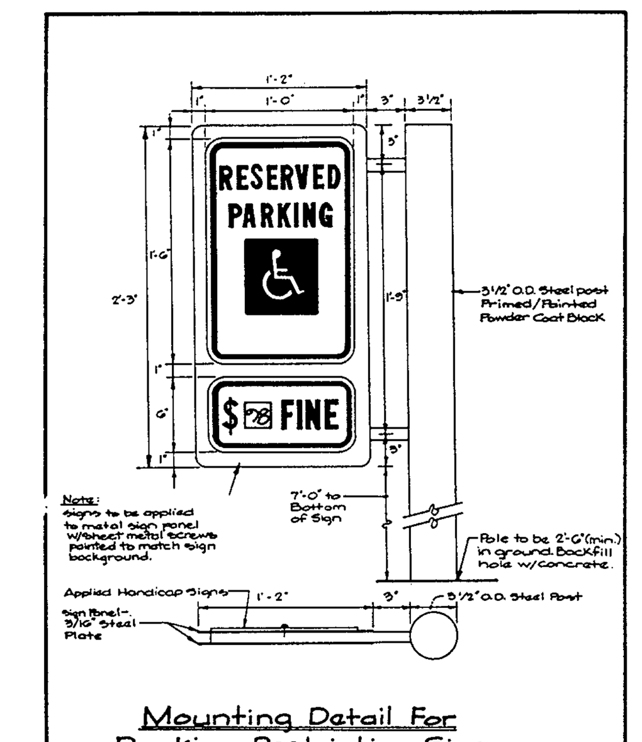


Topsoiling Detail

Materials:

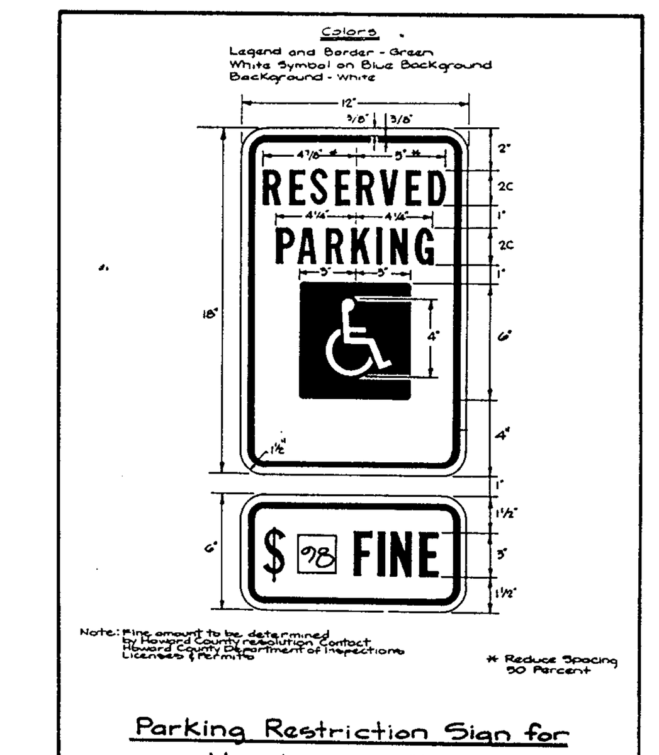
Top soil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand or other soil as approved by an Agronomist or soil scientist. It shall not have a mixture of contrasting textured subsoil and contain no more than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash or other extraneous materials larger than 1½" in dia. Top soil must be free of plants or plant parts of bermuda grass, quack grass, jonson grass, nutsedge, poison ivy, thistles, or others as specified. All top soil shall be tested by a recognized laboratory for organic matter content, pH and soluble salts. A pH of 6.0 to 7.5 and an organic content of not less than 1.5 percent by weight is required. If pH value is less than 6.0, lime shall be applied and incorporated with the top soil to adjust the pH to 6.5 or higher. Top soil containing soluble salts greater than 500 per million shall not be used.





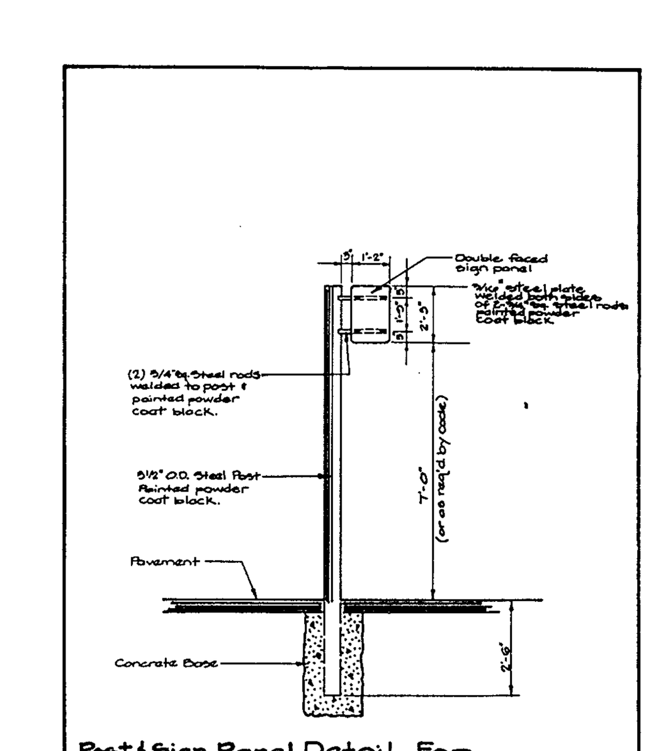
Mounting Detail For Parking Restriction Sign

No Scale



Parking Restriction Sign for Handicapped Parking

No Scale



Post & Sign Panel Detail For Parking Restriction Sign

No Scale

LANDSCAPING NOTES

1. This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Chapter VI (Alternative Compliance) of the Howard County Landscape Manual.

2. Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.

3. Field verify underground utility locations and existing conditions before staring planting work. Contact owner or his representative if any relocations are required.

4. Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.

5. All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.

6. No substitution shall be made without written consent of the owner or his representative.

7. All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with project specifications.

8. The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.

9. All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.

10. "Schedule A - Perimeter Landscape Edge" is provided for landscape surety calculation purposes only. The required surety is: 12 required shade tree (or equivalent) x 100 = $ 1,200.00

11. Tabulation for landscape shown:

SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B	
Linear Feet of Roadway Frontage/Perimeter	260 LF	
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	No	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	No	N/A
Number of Plants Required Shade Trees Evergreen Trees Shrubs	 @1/50 = 5 1/40 = 7 none	
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 substitution) Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)	per alt. compliance - HRD's standards	

Landscape Surety for schedule A required plantings: 12 x 100 = $ 1,200.00

Note: This plan has been prepared in accordance with the provisions of section 16.124 of the Howard county code and the Landscape Manual

Financial surety for the required Landscaping must be posted as part of the grading permit in the amount of $1,200.00 for 12 trees.

For Landscape Purposes Only!!

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE May 7, 1998

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[signature] Director	6/1/98 Date
[signature] Chief, Division of Land Development	5/28/98 Date
[signature] Chief, Development Engineering Division	5/19/98 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	DRN.	CHK. MJT	DATE	MJT	REVISION	BY	APP'R.

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD. 21044
(410) 992-6370

Landscape Plan, Notes & Details
COLUMBIA
VILLAGE OF OAKLAND MILLS
SECTION 2 AREA 1
LOT 3
GUILFORD ELECTION DISTRICT No. 6 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 20'	NEW TOWN	97071
DATE	TAX MAP No.	SHEET
May 11, 1998	36	2 OF 3

SDP-98-109

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (410) 313-1855.

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G).
Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

7. Site Analysis:

Total Area of Site	:	0.291	Acres
Area Disturbed	:	0.35	Acres
Area to be roofed or paved	:	0.20	Acres
Area to be vegetatively stabilized	:	0.15	Acres
Total Cut	:	—	Cu. Yds.
Total Fill	:	—	Cu. Yds.

Off-site waste/borrow area location: N/A

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

11. Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

1) Preferred – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 unreaform fertilizer (9 lbs/1000 sq ft).

2) Acceptable – Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½" in diameter.

ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

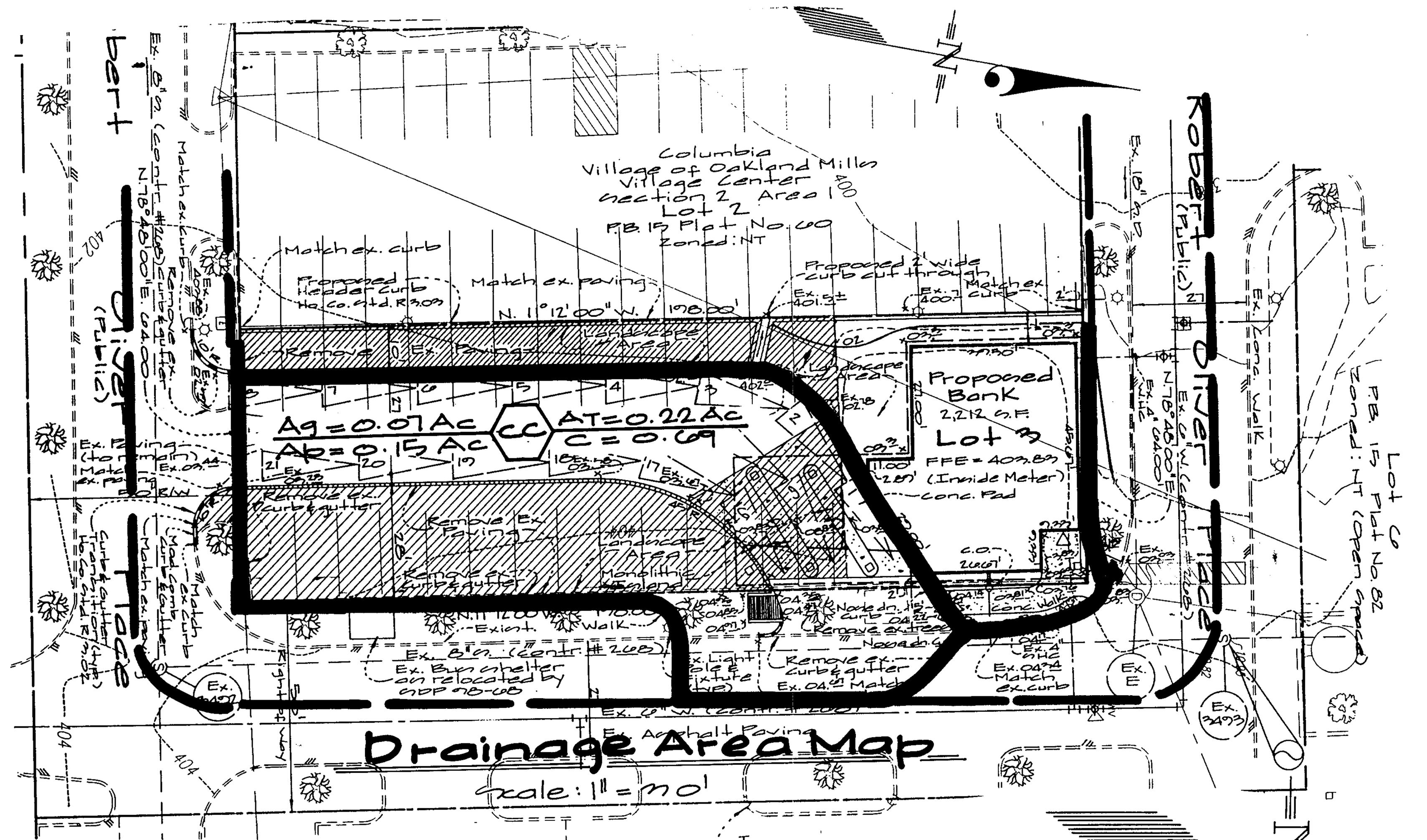
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

iv. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.



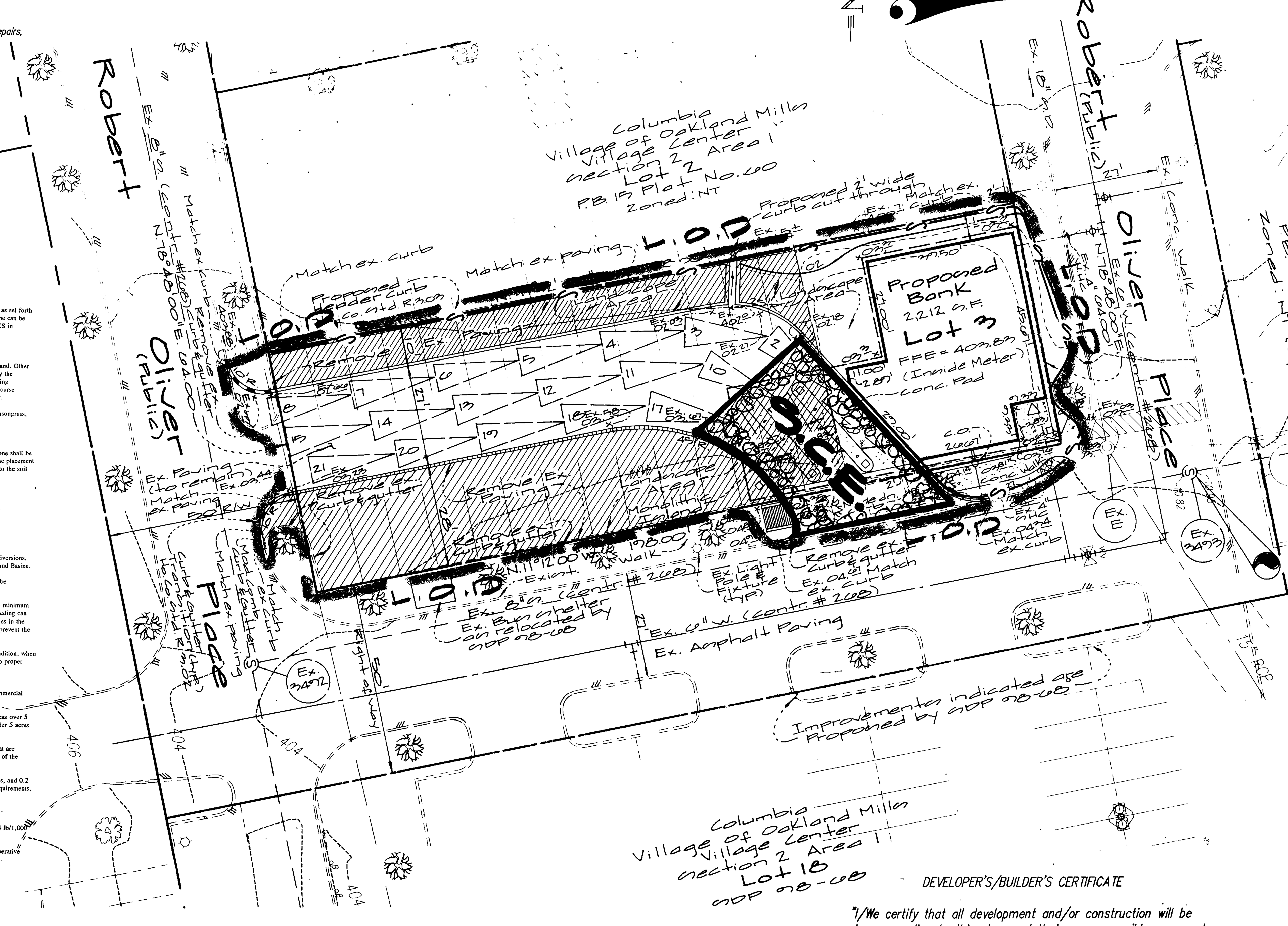
Sequence of Construction

1. Obtain grading permit and arrange pre-construction meeting with the sediment control Inspector. (1 Day)
2. Install stabilized construction Entrance. (1 Day)
3. Remove existing paving, curbs and sidewalk as directed on the site plan. (1 week)
4. Construct Building. (6 months)
5. Install curbs and backfill islands with top soil and stabilize. Install silt fence. (2 weeks)
6. Install sidewalk and landscaping. (1 week)
7. Remove sediment controls when areas draining to them have been stabilized and permission has been granted by the sediment control Inspector. (2 days)
8. Stabilize remaining areas. (1 day)

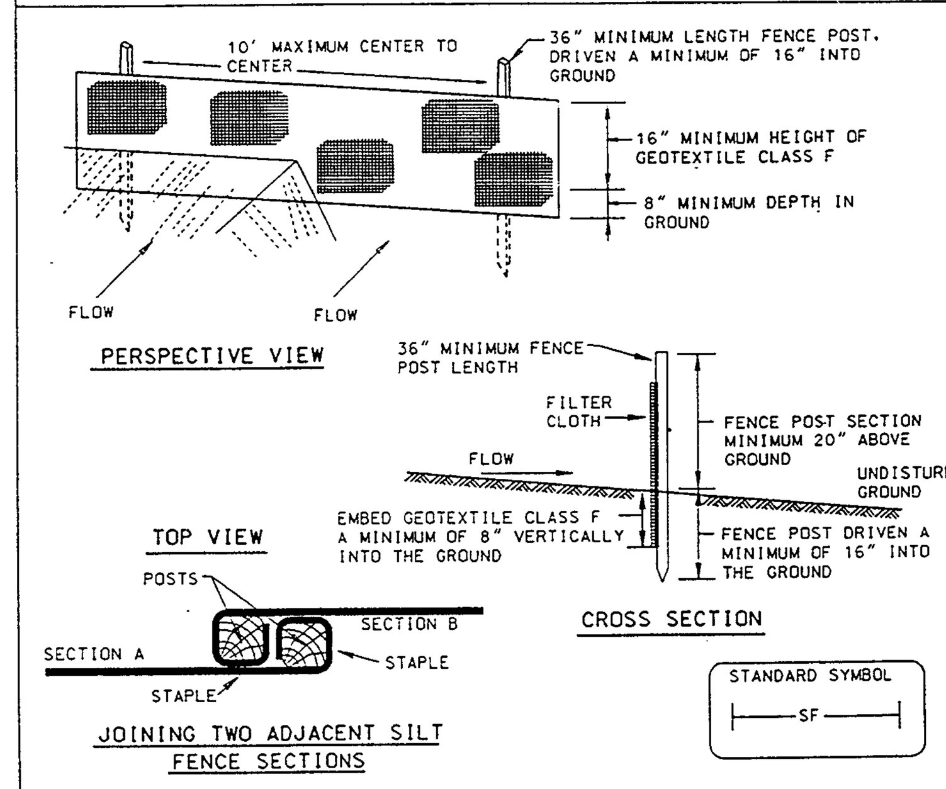
Storm Drain Computation
For Cut-Through

C = 0.69
I_{10} = 8.55
A = 0.22 Ac.
$Q = C I_{10} A$
Q = 0.69 (8.55) (0.22)
= 1.3 cfs

Depth of Flow:
$Q = CLH^{3/2}$
C = 3.1
L = 2
∴ H = 0.35' < 0.5'



DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1½" x 1½" square (minimum) cut, or 1¾" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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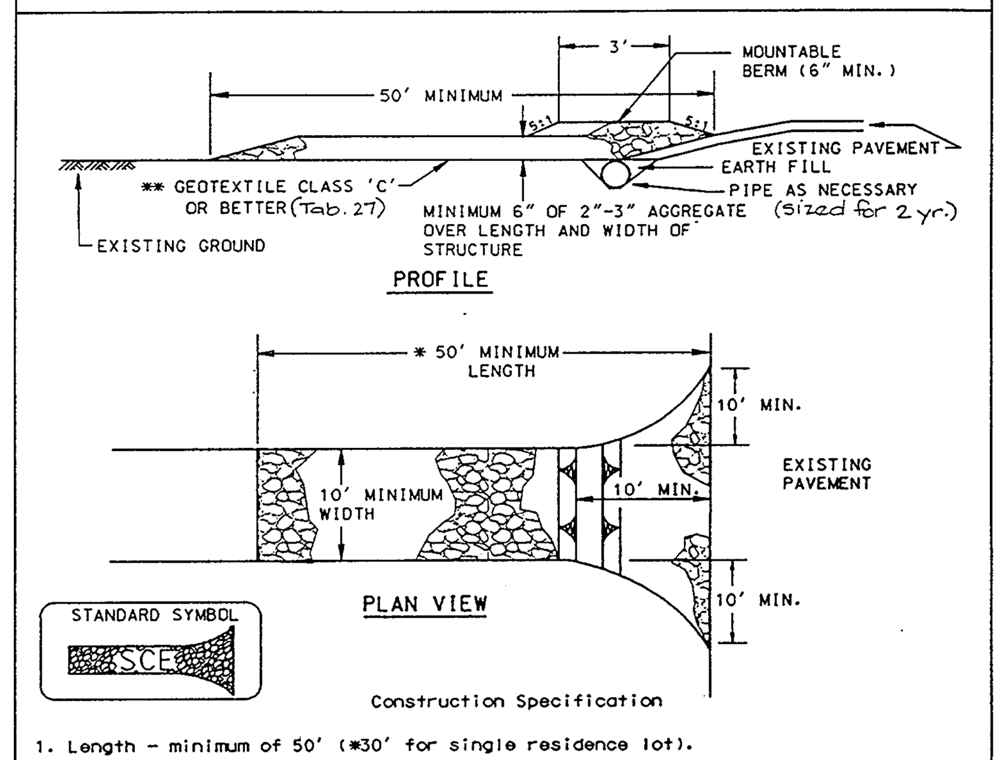
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length – minimum of 50' (*30' for single residence lot).

2. Width – 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

4. Stone – crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water – all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location – A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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Bench Mark
Rim of MH 3493
Elev. = 405.76

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

Cheryl Simmons 5/18/98
Natural Resources Conservation Service — Date

ENGINEER'S CERTIFICATE

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

3-17-98
Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

5/18/98
Howard S.C.D. — Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the HSCD."

3-17-98
Signature of Developer/Builder — Date

For Sediment Control Purposes Only!!

Legend

L.O.D.	Limit of Disturbance
—S—	Silt Fence
S.C.E.	Stabilized Construction Entrance

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE May 7, 1998

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 6/1/98
Chief, Division of Land Development	Date 5/28/98
Chief, Development Engineering Division	Date 5/19/98

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES.	DRN.	CHK. MJT	DATE	REVISION	BY	APP'R.
			MJT			

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION
THE ROUSE BUILDING
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MD. 21044
(410) 992-6370

Sediment Control Plan Details & Notes

COLUMBIA
VILLAGE OF OAKLAND MILLS
SECTION 2 AREA 1
LOT 3

GUILFORD ELECTION DISTRICT No. 6 — HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 20'	NEW TOWN	97071
DATE	TAX MAP No.	SHEET
May 11, 1998	36	3 OF 3

SDP-98-109